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Fax Notes:

Sir:

      This communication is regarding Application 09/454,221 (Attorney Docket No. MS1-435US)
      Attached are the marked-up version of the portion of the specification that needs to be corrected as shown, and the full text of all the claims with proposed corrections. Instructions sheet is also attached with indication of claims that contain formal problems. I would like you to review the attachments and fax me the text of claim amendments and amended portion of the specification that I would use for Examiner's Amendment.

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1.   (Previously Presented) A method in a server-client environment, the method comprising:

receiving at the server a driver identifier for a printer that is attached to the client;

using the driver identifier to select a closest matching driver of a plurality of drivers to install at the server; and

installing, at the server and not at the client, the selected driver in order to enable applications executing on the server to print to the printer using the installed driver.

2.   (Previously Presented) A method as recited in claim 1, wherein the receiving comprises receiving the driver identifier from the client.

3.   (Original) A method as recited in claim 1, wherein the driver identifier includes both a driver name and a driver version.

4.   (Original) A method as recited in claim 1, wherein the using comprises accessing a library at the server that stores the plurality of drivers.

5. (Original) A method as recited in claim 1, wherein:

the using comprises checking whether any of the plurality of drivers has a corresponding driver identifier that is the same as the received driver identifier; and

if a particular driver of the plurality of drivers has a corresponding driver identifier that is the same as the received driver identifier, then selecting that driver to install at the server.

6. (Original) A method as recited in claim 1, wherein:

the using comprises checking whether any of the plurality of drivers currently has a corresponding driver identifier that is different than the received driver identifier but that corresponds to the same driver as the received driver identifier; and

if a particular driver of the plurality of drivers currently has a corresponding driver identifier that is different than the received driver identifier but that corresponds to the same driver as the received driver identifier, then selecting that driver to install at the server.

7.   (Original) A method as recited in claim 6, wherein one of the plurality of drivers currently has a corresponding driver identifier that is different than the received driver identifier but that corresponds to the same driver because of a driver name change by a source of the driver.

8.   (Original) A method as recited in claim 6, further comprising:

issuing a notification that the selected driver currently has a corresponding driver identifier that is different than the received driver identifier but that corresponds to the same driver as the received driver identifier.

9.   (Original) A method as recited in claim 1, wherein:

the receiving comprises receiving a driver name and a driver version;

the using comprises checking whether any of the plurality of drivers has a corresponding driver name that is the same as the received driver name; and

if a particular driver of the plurality of drivers has a corresponding driver name that is the same as the received driver name, then selecting that driver to install at the server.

10.   (Original) A method as recited in claim 9, further comprising:

selecting a first driver with a corresponding driver name that is the same as the received driver name to install at the server without regard for whether the

received driver version is the same as a corresponding driver version of the first driver.

11.   (Original) A method as recited in claim 9, further comprising:

issuing a notification that the selected driver has a corresponding driver name that is the same as the received driver name but a corresponding driver version that is different than the received driver version.

12.   (Original) A method as recited in claim 9, further comprising:

checking whether the selected driver has a corresponding driver version that is the same as the received driver version; and

if the selected driver does not have a corresponding driver version that is the same as the received driver version, then obtaining a new copy of the driver that has the same driver version as the received driver version.

13.   (Original) A method as recited in claim 12, further comprising :

obtaining a new copy of the driver only if the received driver version indicates a more recent version of the driver than is indicated by the driver version corresponding to the selected driver.

14. (Original) At least one computer-readable memory containing a computer program that is executable by a processor to perform the method recited in claim 1.

15. (Previously Presented) A method implemented in a server in a server-client environment, the method comprising:

automatically selecting at least one of a plurality of drivers corresponding to a peripheral device attached to the client; and

installing, at the server and not at the client, the selected at least one driver wherein the server can interface with the peripheral device using the driver to cause the selected at least one driver to perform an action at the peripheral device using the driver.

16. (Original) A method as recited in claim 15, wherein the peripheral device comprises a printer.

17. (Original) A method as recited in claim 15, wherein the automatically selecting comprises using a received driver identifier corresponding to a printer to select a closest matching driver of the plurality of drivers to install at the server.

18. (Original) A method as recited in claim 15, wherein:

the automatically selecting comprises checking whether any of the plurality of drivers has a corresponding driver identifier that is the same as a received driver identifier; and

if a particular driver of the plurality of drivers has a corresponding driver identifier that is the same as the received driver identifier, then installing that driver at the server.

19. (Original) A method as recited in claim 15, wherein:

the automatically selecting comprises checking whether any of the plurality of drivers currently has a corresponding driver identifier that is different than a received driver identifier but that corresponds to the same driver as the received driver identifier; and

if a particular driver of the plurality of drivers currently has a corresponding driver identifier that is different than the received driver identifier but that corresponds to the same driver as the received driver identifier, then installing that driver at the server.

20. (Original) A method as recited in claim 19, further comprising:

issuing a notification that the installed driver currently has a corresponding driver identifier that is different than the received driver identifier but that corresponds to the same driver as the received driver identifier.

21. (Original) A method as recited in claim 15, wherein:

the automatically selecting comprises checking whether any of the plurality of drivers has a corresponding driver name that is the same as a received driver name; and

if a particular driver of the plurality of drivers has a corresponding driver name that is the same as the received driver name, then installing that driver at the server.

22. (Original) A method as recited in claim 21, further comprising:

selecting a first driver with a corresponding driver name that is the same as the received driver name to install at the server without regard for whether a received driver version is the same as a corresponding driver version of the first driver.

23. (Original) A method as recited in claim 21, further comprising:

issuing a notification that the installed driver has a corresponding driver name that is the same as the received driver name but a corresponding driver version that is different than the received driver version.

24. (Original) A method as recited in claim 21, further comprising:

checking whether the installed driver has a corresponding driver version that is the same as a received driver version; and

if the selected driver does not have a corresponding driver version that is the same as the received driver version, then obtaining a new copy of the driver that has the same driver version as the received driver version.

25. (Previously Presented) The method of claim 15, wherein at least one computer-readable memory contains a computer program that is executable by a processor to perform the method.

26. (Previously Presented) One or more computer-readable media having stored thereon a computer program that, when executed by one or more processors of a server in a client-server system, causes the one or more processors to:

receive a printer driver identifier for a printer attached to a client;

use the printer driver identifier to select one of a plurality of printer drivers to install at the server and not at the client according to the following,   :

[ ]
if a particular printer driver of the plurality of printer drivers has a corresponding printer driver identifier that is the same as the received printer driver identifier, then selecting that particular driver,

if a particular printer driver of the plurality of printer drivers currently has a corresponding printer driver identifier that is different than the received printer driver identifier but that corresponds to the same printer driver as the received printer driver identifier, then selecting that particular printer driver, and

if a particular printer driver of the plurality of printer drivers has a corresponding driver name that is the same as a driver name received as part of the printer driver identifier, then selecting that particular printer driver without regard for whether that particular printer driver has a corresponding driver version that is the same as a driver version received as part of the printer driver identifier; and

install the selected printer driver at the server in order to enable the selected printer to print.

[   ] The computer-readable media of
27.   (Original) A method as recited in claim 26, wherein the server comprises a terminal server and wherein the client comprises a terminal server client.

28. (Original) A method as recited in claim 26, wherein one of the plurality of printer drivers currently has a corresponding printer driver identifier that is different than the received printer driver identifier but that corresponds to the same printer driver due to a name of the printer driver being changed.

29. (Previously Presented) An apparatus comprising:

a driver library including a plurality of printer drivers; and

a driver matching module to select at least one of the plurality of printer drivers to be installed on the apparatus to enable a printer attached to a client connected with the apparatus to print, wherein the driver is installed on the apparatus and not the client.

30. (Previously Presented) An apparatus as recited in claim 29, wherein the driver matching module further:

checks whether any of the plurality of drivers has a corresponding driver identifier that is the same as a received driver identifier; and

wherein if a particular driver of the plurality of drivers has a corresponding driver identifier that is the same as the received driver identifier, then install that driver at the server.   on the apparatus
[   ]

31. (Previously Presented) An apparatus as recited in claim 29, further comprising:

a mapping table to map previous driver identifiers to subsequent driver identifiers;

wherein the driver matching module further checks the mapping table to determine whether any of the plurality of drivers currently has a corresponding driver identifier that is different than a received driver identifier but that corresponds to a same printer driver as the received printer driver identifier; and

if so, then installs the corresponding printer driver at the server.
[   ]   on the apparatus

32. (Previously Presented) An apparatus as recited in claim 29, wherein the driver matching module further:

checks whether any of the plurality of printer drivers has a corresponding driver name that is the same as a received driver name; and

wherein if a particular printer driver of the plurality of printer drivers has a corresponding driver name that is the same as the received driver name, then install that printer driver at the server without regard for whether that particular
[   ]   on the apparatus
printer driver has a corresponding driver version that is the same as a received driver version.

33. (Previously Presented) A system comprising:

a client computer having a local printer attached thereto; and

a server computer coupled to the client computer via a network, wherein the server computer includes,

[   ]   :

a driver library including a plurality of printer drivers, and

a driver matching module to select at least one of the plurality of printer drivers for installation on the server computer and not the client computer to allow applications executing on the server computer to print to the local printer, the driver matching module selecting one of the plurality of printer drivers for installation based on a printer driver identifier and according to the following,

[   ]   :

if a particular printer driver of the plurality of printer drivers has a corresponding printer driver identifier that is the same as the received printer driver identifier, then selecting that particular driver for installation in order to enable the local printer to print,

if a particular printer driver of the plurality of printer drivers currently has a corresponding printer driver identifier that is different than the received printer driver identifier but that corresponds to the same printer driver as the received printer driver identifier, then selecting that particular printer driver for installation in order to enable the local printer to print, and

if a particular printer driver of the plurality of printer drivers has a corresponding driver name that is the same as a driver name received as part of the printer driver identifier, then selecting that particular

printer driver without regard for whether that particular printer driver has a corresponding driver version that is the same as a driver version received as part of the printer driver identifier for installation on the server computer in order to enable the local printer to print.

34. (Previously Presented) A system as recited in claim 33, wherein the client computer transmits the printer driver identifier to the server computer.

35. (Previously Presented) A computer readable medium having computer executable instructions, which when executed by a processor, causes the processor to:

receive at a server a driver identifier for a printer that is attached to a client connected with the server, wherein the server can print information at the client;

use the driver identifier to select a closest matching driver of a plurality of drivers to install at the server, and not at the client; and

install, at the server, the selected driver in order to enable applications that are executing to print to the printer using the installed driver.

36. (Previously Presented) The computer-readable media of claim 35,
[   ] medium
wherein said applications run on the server.

37. (Previously Presented) The computer-readable media of claim 35,
[   ] medium
wherein the driver identifier includes both a driver name and a driver version.

38. (Previously Presented) The computer-readable media of claim 35,
[   ] medium
wherein the driver identifier is used to access a library at the server that stores the plurality of drivers.

39. (Previously Presented) The computer-readable media of claim 35,
[   ] medium
wherein:

the driver identifier is used to check whether any of the plurality of drivers has a corresponding driver identifier that is the same as the received driver identifier; and

if a particular driver of the plurality of drivers has a corresponding driver identifier that is the same as the received driver identifier, then select that driver to install at the server.

40. (Previously Presented) The computer-readable media of claim 35,
[   ] medium
wherein:

the driver identifier is used to check whether any of the plurality of drivers currently has a corresponding driver identifier that is different than the received driver identifier but that corresponds to the same driver as the received driver identifier; and

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if a particular driver of the plurality of drivers currently has a corresponding driver identifier that is different than the received driver identifier but that corresponds to the same driver as the received driver identifier, then select that driver to install at the server.

Marked-up Version of the Specification:

Please amend the specification as follows:

Please replace the paragraph from page 1, line 22, to page 2, line 10 with the following paragraph:

Client users frequently use peripheral devices physically attached to the client machines. For example, a user may wish to attach a printer to the user's client computer (a "local" printer) in order to print data generated by an application that is running on the server computer. To do this, currently the user must manually install the local printer and redirect the printer queue created by the server to the I/O port of the client computer to which the printer is connected. Such manual installation of peripheral devices is undesirable because it requires
U.S. Patent No. 6,789,111
significant time and effort on the part of the user. ~~A co-pending application (U.S.~~ ~~Patent Application No. [09/_____]~~ 09/458,365) entitled "Automatic Detection And Installation Of Client Peripheral Devices By A Server", ~~to Tad Brockway,~~ ~~Madan Appiah, Adam Overton, and Ritu Bahl, filed concurrently herewith,~~ ~~(Attorney Docket No. MS1-432US)~~ describes a system which resolves many of these manual installation problems by automatically detecting such devices and installing and corresponding device drivers at the server.

Marked-up Version of the Pending Claims Under 37 C.F.R. Section 1.121(c)(1)(ii):

Amend the claims as follows and in accordance with 37 C.F.R. Section 1.121(c)(1)(ii), by which the Applicant submits the following marked up version

INSTRUCTIONS

claim 13: missing colon at the end of line 1

claim 26: replace comma with colon at line 7 at the end of the line after word "following"

claims 27 and 28: preamble inconsistent with claim 26. Replace "a method as recited in" with "the computer-readable media of"

claim 30: replace "at the server" with "on the apparatus" at the last line in order to provide proper antecedent basis

claim 31: replace "at the server" with "on the apparatus" at the last line in order to provide proper antecedent basis

claim 32: replace "at the server" with "on the apparatus" at line 7 in order to provide proper antecedent basis

claim 33: replace comma with colon at the end of line 4 and line 11

claims 36-40: replace "media" with "medium" at line 1 of each claim 36-40 to provide proper antecedent basis.